



Landscape Architecture • Urban Design • Environmental Design • Park Planning

**General Grounds Improvements  
for Barton Springs Pool**

# Lighting Improvements

Presented to the  
**Design Commission**  
June 24, 2013

**Updated for Land and Facilities Meeting  
August 19, 2014  
and  
Joint Committee Meeting  
November 12, 2014**



**Larson Burns & Smith**

Landscape Architects / Planners

**Stansberry Engineering**

Civil Engineers

**Saenz + Bury**

MEP Engineers

**Frank Lam & Associates**

Structural Engineers

## Positive Feedback and Recognition

### Barton Springs Pool General Grounds Improvements Project:



ISA - Texas Chapter - 2014 Award

**"ARBORICULTURE PROJECT of the YEAR"**

Barton Springs Tree Court

Best of Austin Award - *Austin Chronical*

**"BEST IMPROVED ENTRY"**

to the soul of Austin

Barton Springs South Side



- A. South Entry Gate**
- B. Combined ADA Path and Steps**
- C. South Woods**
- D. Connection to Pool Deck**
- E. Overlook Area**
- F. New Ornamental Perimeter Fence**
- G. Relocated D. G. Trail**
- H. South Parking Lot**
- I. Planting on Slope**
- J. Tree Court**

- LEGEND**
- Pool Area Light
  - Tree Down Light
  - Pedestrian and Parking Lot Light

**Barton Springs Pool  
General Grounds Improvements**

**Lighting Improvements**

# Design/Stakeholder Process

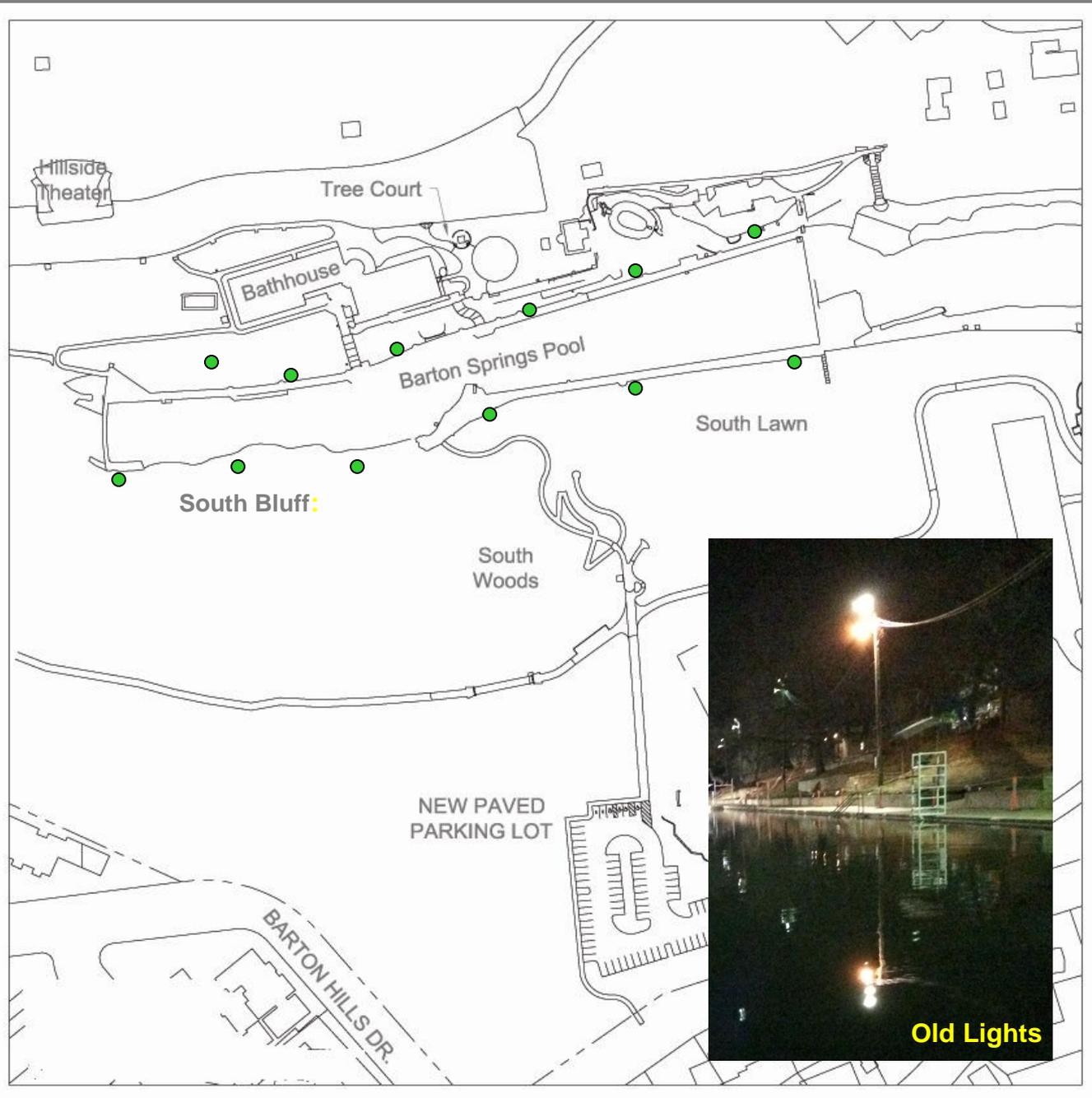
- Four Design Charrettes in 2010 prior to preliminary design
- Over 40 public input meetings
- Stakeholder surveys
- Multiple presentations to Joint Committee with stakeholder input
- All aspects of plan approved by Joint Committee, Planning Commission & City Council
- Current plan considered all comments and is a product of the process

# COA Board & Commission Approvals

- February 27, 2012 - Design Commission
- June 28, 2012- "Environmental Board & Parks Recreation Board" Joint Committee
- August 13, 2012- Land, Facilities and Program
- August 27, 2012- Historic Landmark Commission
- August 28, 2012- Parks and Recreation Board
- December 19, 2012 - Urban Forestry Board
- February 11, 2013 - Waterfront Planning Advisory Board
- February 19, 2013 - Codes and Ordinances Subcommittee
- February 20, 2013 - Environmental Board
- February 26, 2013 - Planning Commission
- April 11, 2013 - City Council
- April 23, 2013 - Planning Commission (site plan conditional use)
- **August 19, 2014 – Land, Facilities and Program Committee (lighting)**



Existing Pool Lighting Circa 1936



**Existing Conditions:**

**Old Pool Area Lights**

- Twin Fixture Flood Lights  
Mounted on 30' Wood Utility Poles

Lighting Levels Varied from very low levels over the water to high levels on the pool deck directly under the old light fixtures.

Foot Candle readings were recorded as high as 8.2 on the pool deck. Design Goal is an average FC reading of 2.0.

A Foot-Candle is a measurement of illumination equal to the light produced by one candle at a distance of one foot.

**Design Constraints**

**Fish and Wildlife & Permit Restrictions:**  
Use existing wood poles or place new non – preservative treated poles in same footing hole.

Replacement poles can not be placed within the South Bluff's Critical Environmental Feature Zone.

New Light Poles can only be relocated under the direction of the Salamander Biologist.

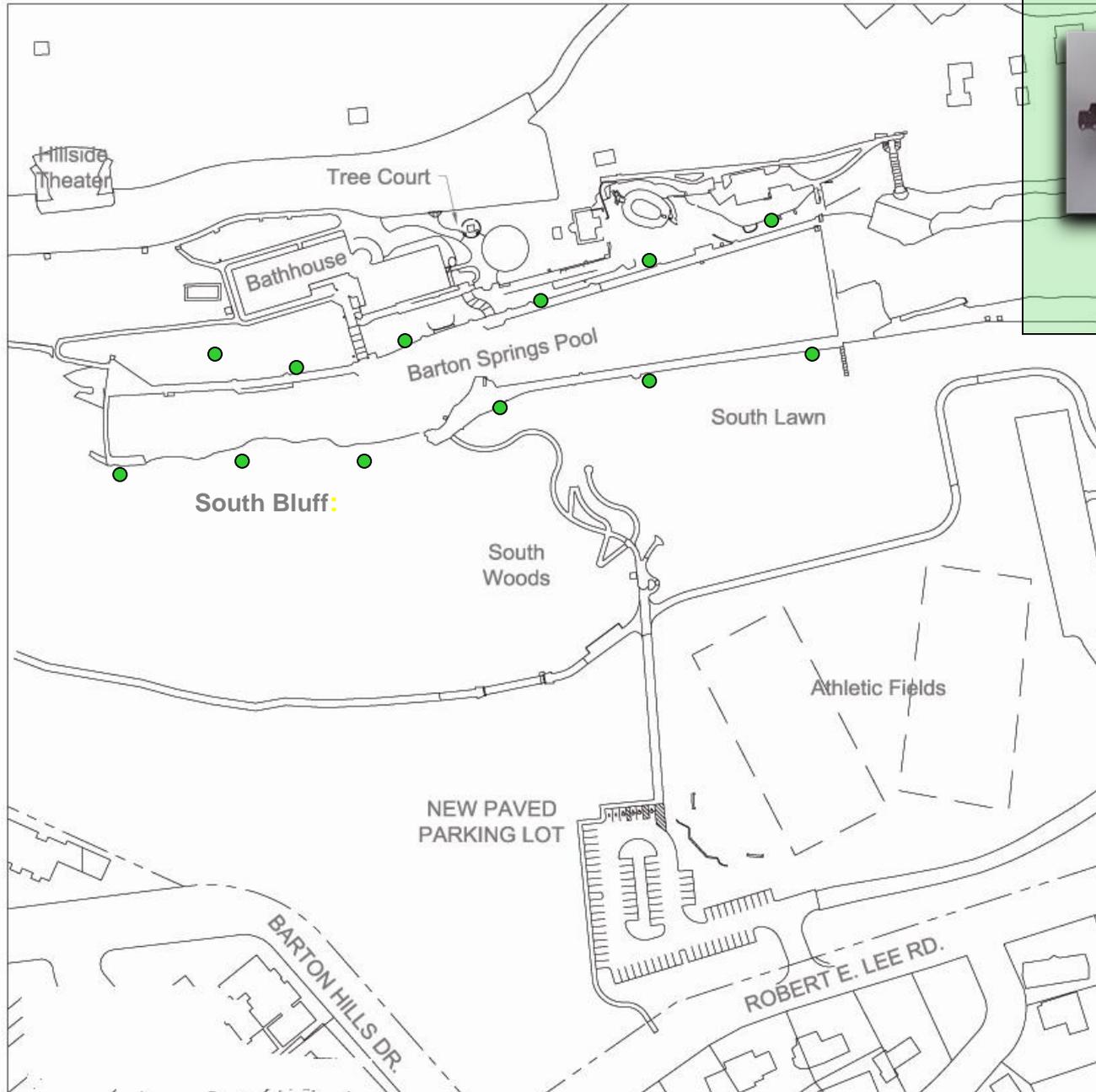
Hydraulic lifts will not be allowed on the pool deck for installation or maintenance of the new light fixtures.

Poles to be climbable

No light fixtures allowed underwater.



**Old Lights**

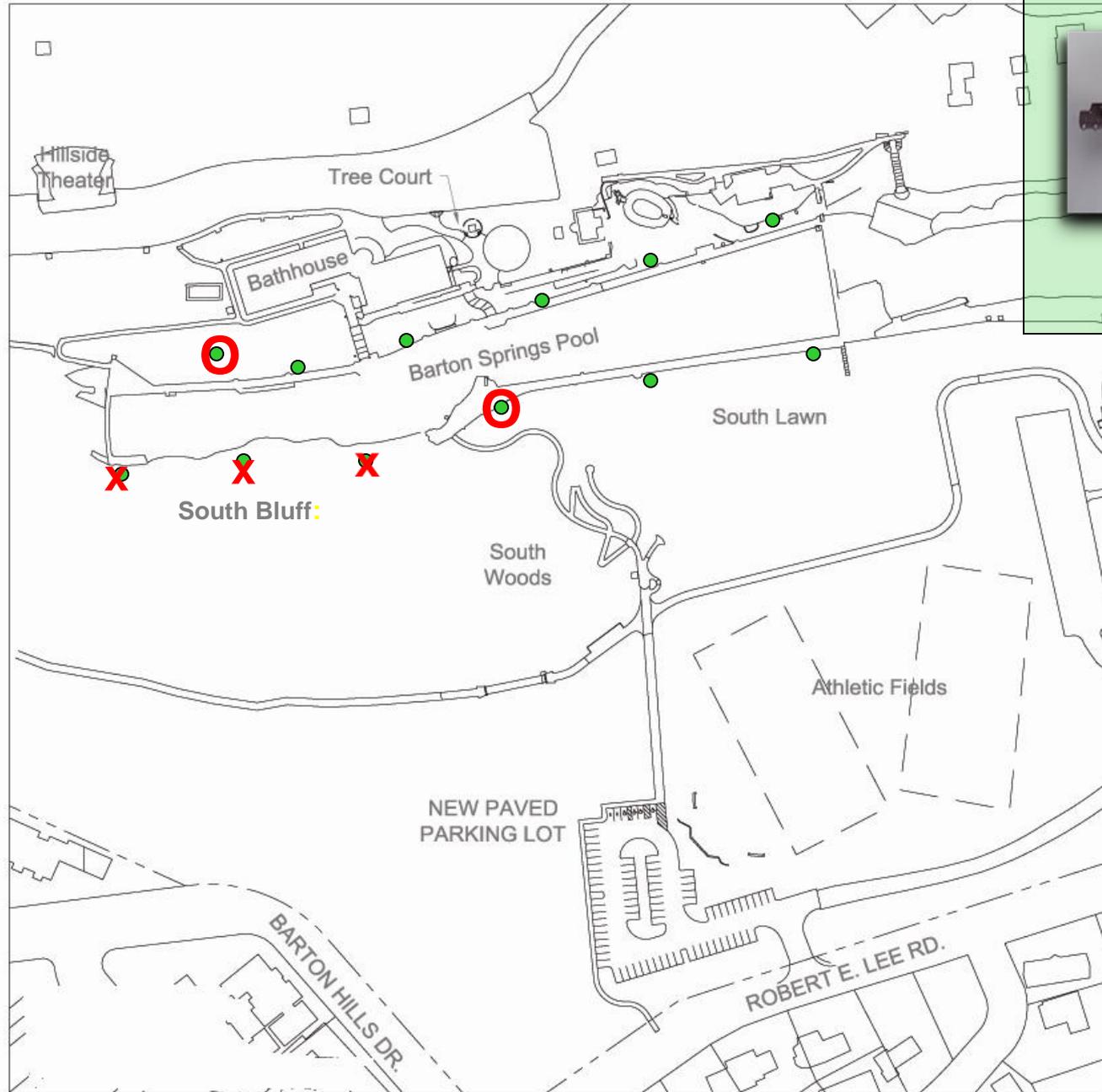


## Pool Area Light

- Metal Halide
  - Fully directional
  - Twin Fixtures
- ABS Lighting Series  
3700 HM-400PS3  
Mounted on Existing 30'  
Poles

**This Fully Directional Light Fixture was First Presented to the Joint Committee May 2012.**

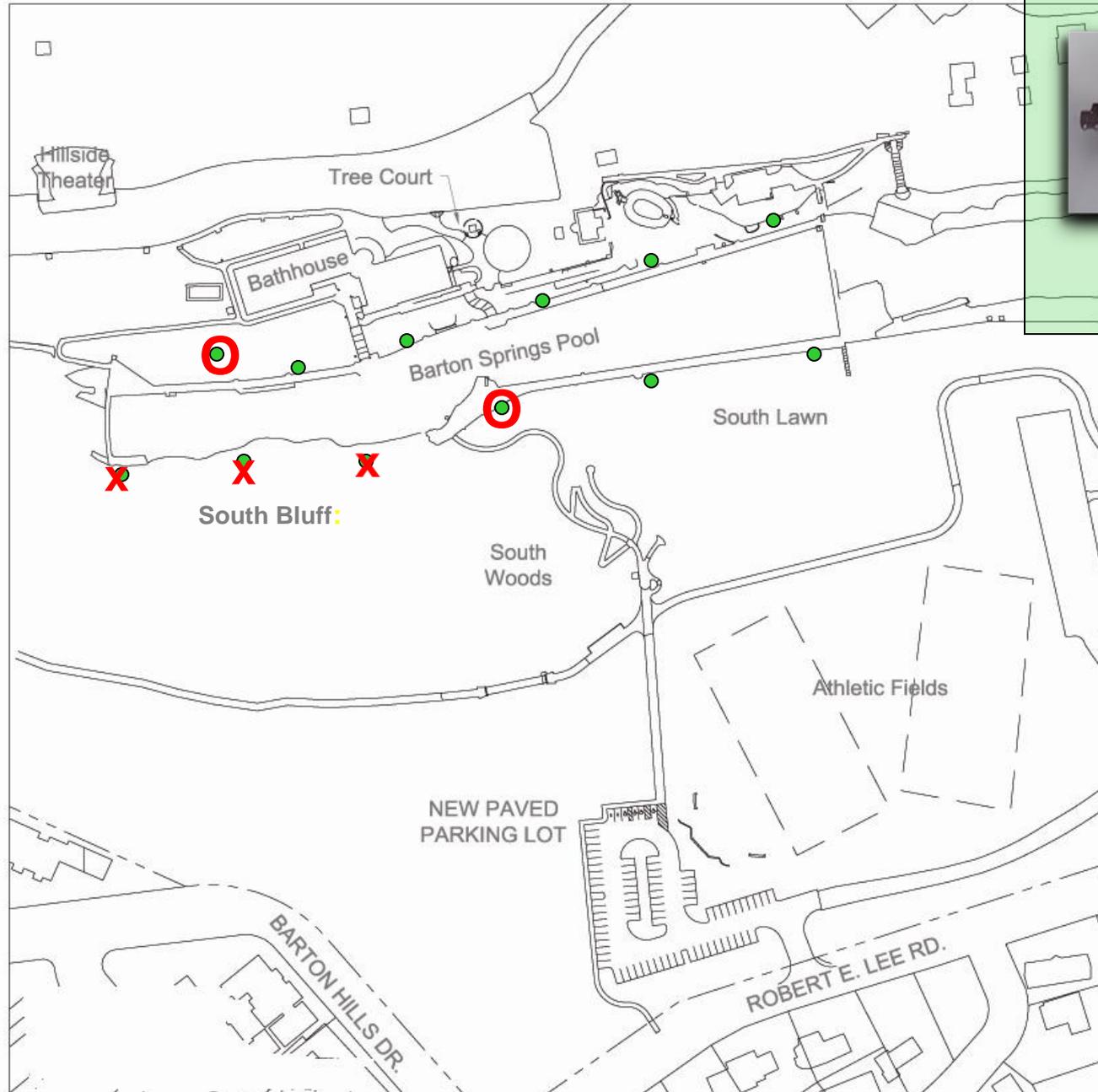
**During construction the Existing Wood Poles Were Determined Past Useful Life.**



## Pool Area Light

- Metal Halide
  - Fully directional
  - Twin Fixtures
- ABS Lighting Series  
3700 HM-400PS3  
Mounted on 30'  
Fiberglass Poles

**Because of Environmental Concerns, Wood Poles Were Not A Viable Option for Replacement.**



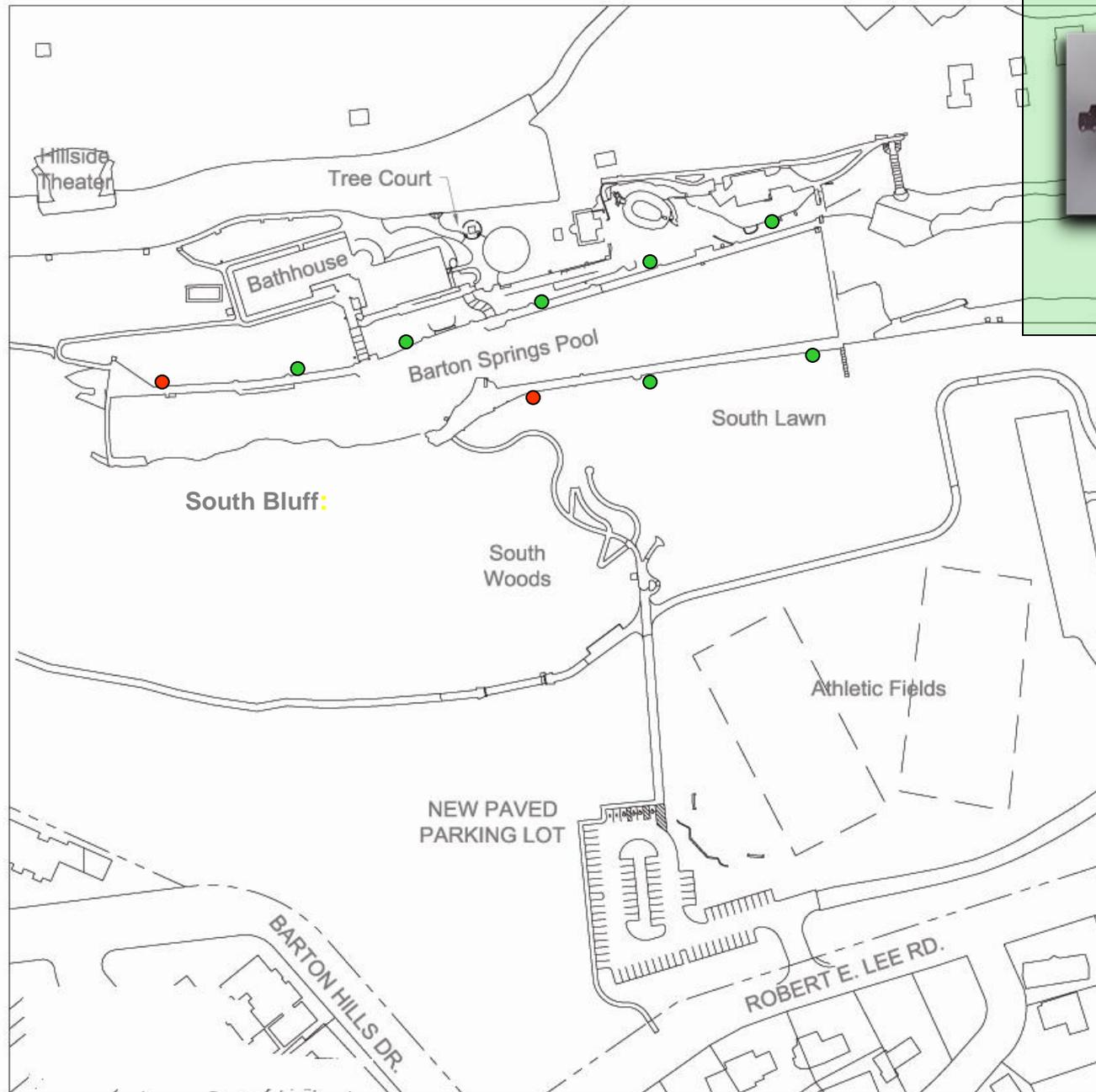
## Pool Area Light

- Metal Halide
  - Fully directional
  - Twin Fixtures
- ABS Lighting Series  
3700 HM-400PS3  
Mounted on Existing 30' Poles

**Because the South Bluff is a Critical Environmental Feature, 3 Poles Along the Bluff Could Not Be Replaced. The Six Light Fixtures Were Moved to the North Side Opposite the Bluff.**

**Two Poles Were Relocated.**

**Twelve Existing Light Poles Reduced to Nine Poles.**



## Pool Area Light

- Metal Halide
  - Fully directional
  - Twin Fixtures
- ABS Lighting Series  
3700 HM-400PS3  
Mounted on New 30'  
Fiberglass Poles

### Design Light Levels at Pool Surface:

**Ave FC 2.0,**  
**Max 8.0,**  
**Min 0.30**

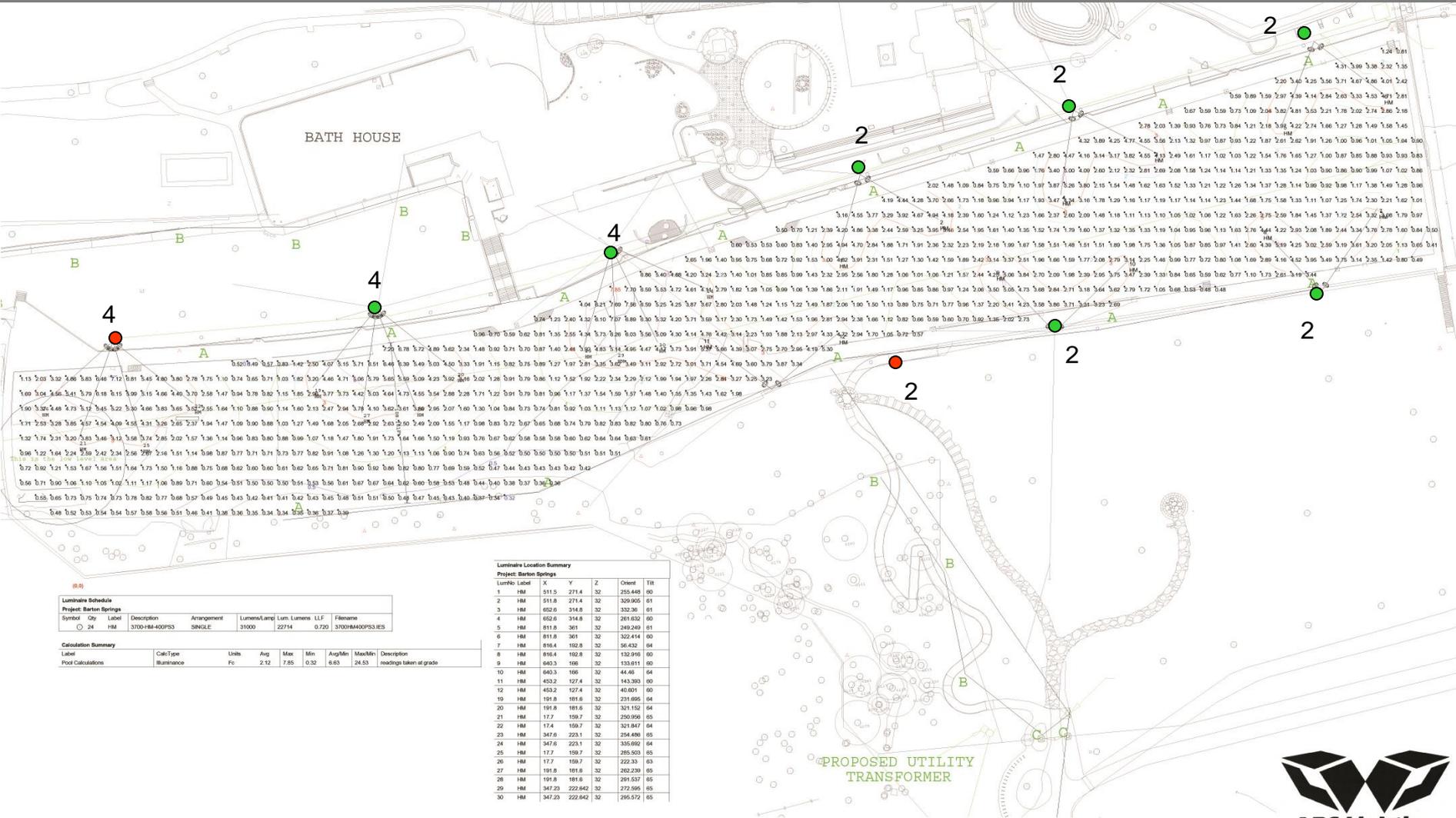
**30' Height Fiberglass Poles**

**Light Weight**

**Climbable**

**Installed in same footing,  
Hand Tamp Only**

**Two Relocated Poles installed  
under the direction of the  
Salamander Biologist**



**Luminaire Location Summary**  
Project: Barton Springs

LumNo	Label	X	Y	Z	Orient	TR
1	HM	511.5	271.4	32	255.489	00
2	HM	511.8	271.4	32	320.925	01
3	HM	602.6	314.8	32	332.36	01
4	HM	602.6	314.8	32	261.632	60
5	HM	611.8	361	32	248.249	01
6	HM	611.8	361	32	322.414	60
7	HM	616.4	192.3	32	96.432	04
8	HM	616.4	192.3	32	132.916	60
9	HM	640.3	198	32	133.011	60
10	HM	640.3	198	32	322.414	60
11	HM	453.2	127.4	32	143.383	60
12	HM	453.2	127.4	32	40.001	60
16	HM	191.8	181.6	32	231.696	04
20	HM	191.8	181.6	32	321.152	04
21	HM	17.7	159.7	32	250.956	05
22	HM	17.4	159.7	32	321.847	04
23	HM	347.6	223.1	32	254.486	05
24	HM	347.6	223.1	32	335.092	04
25	HM	17.7	159.7	32	285.503	05
26	HM	17.7	159.7	32	222.33	03
27	HM	191.8	181.6	32	262.239	05
28	HM	191.8	181.6	32	291.637	05
29	HM	347.23	222.842	32	272.596	05
30	HM	347.23	222.842	32	295.572	05

**Luminaire Schedule**  
Project: Barton Springs

Symbol	Qty	Label	Description	Arrangement	Lumens/Lamp	Lum. Lumens	LLF	Filename
○	24	HM	3700-H8-400FS	SINGLE	31000	22714	0.70	3700-HM400FS.HES

**Calculation Summary**

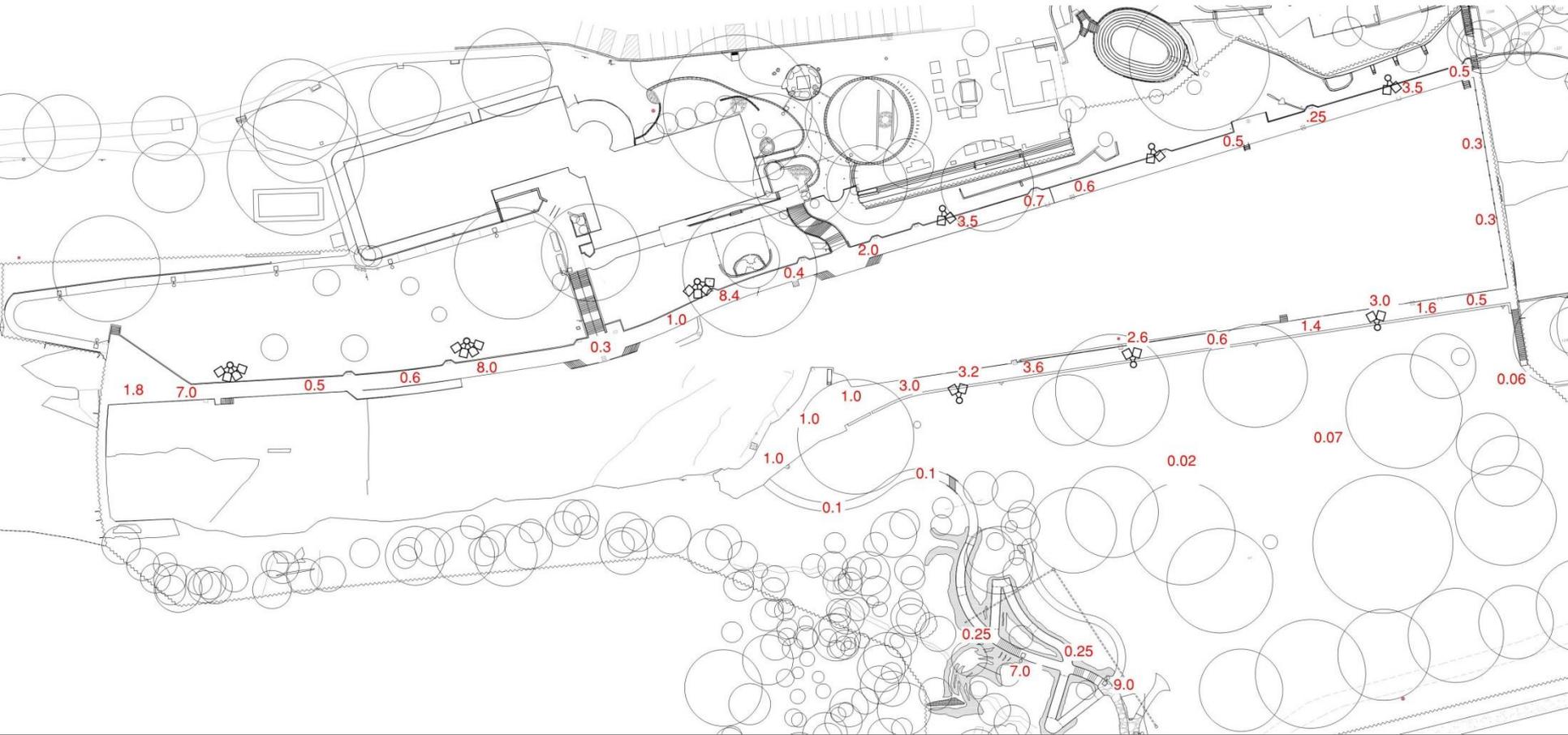
Label	Calc Type	Units	Avg	Max	Min	AvgMin	MaxMin	Description
Pool Calculations	Illuminance	FC	2.12	7.85	0.32	6.83	24.53	readings taken at grade

View\_1:Plan Rotated 0 Tilted 0  
Scale: 1 Inches = 32 Ft.

**Pool Surface: Ave FC 2.12, Max 7.85, Min .32**



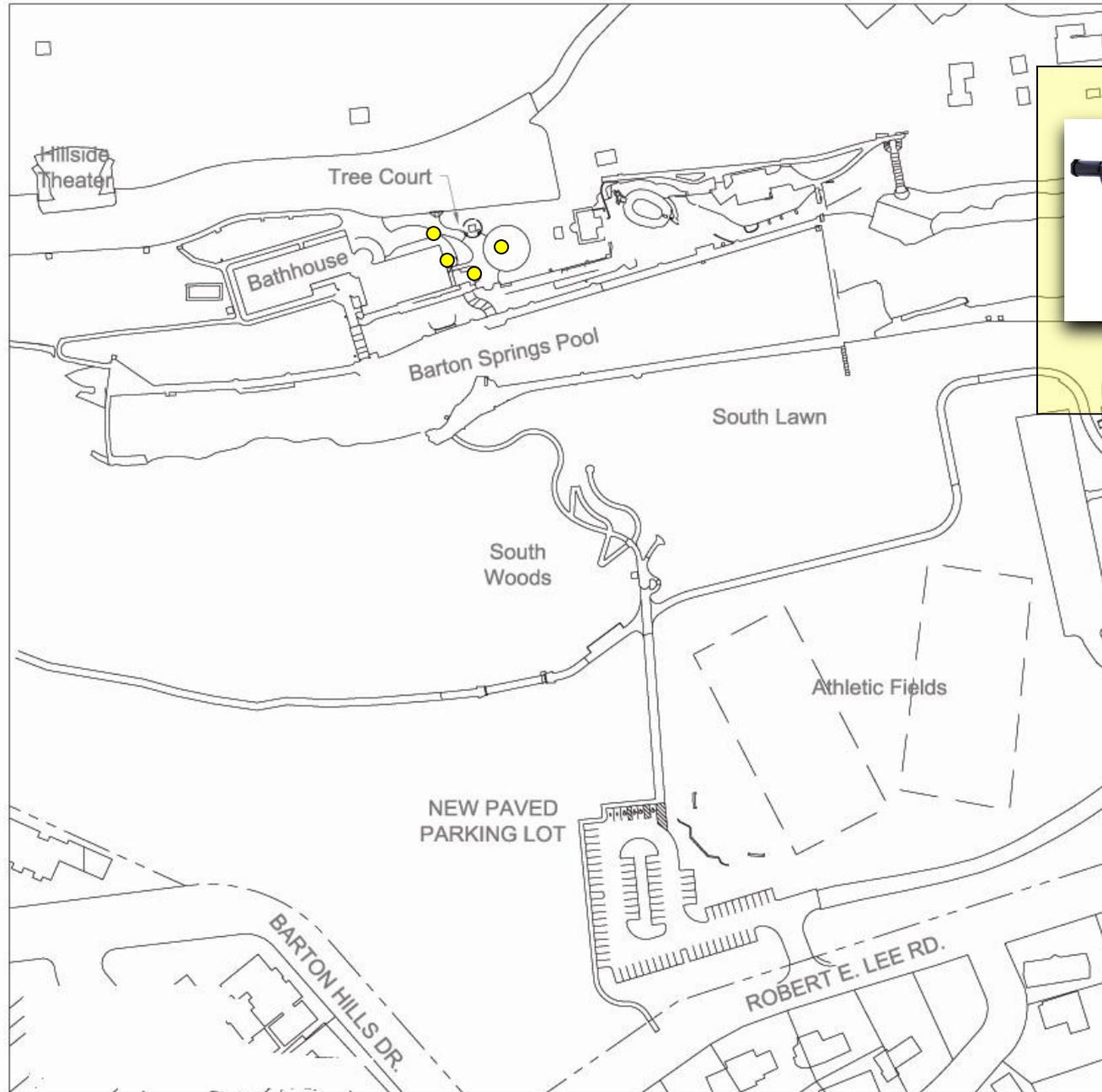
**New Lighting Design**



**New Lighting FC Reading July 30, 2014**

**Pool Deck: Ave FC 2.0, Max 8.4, Min .25**

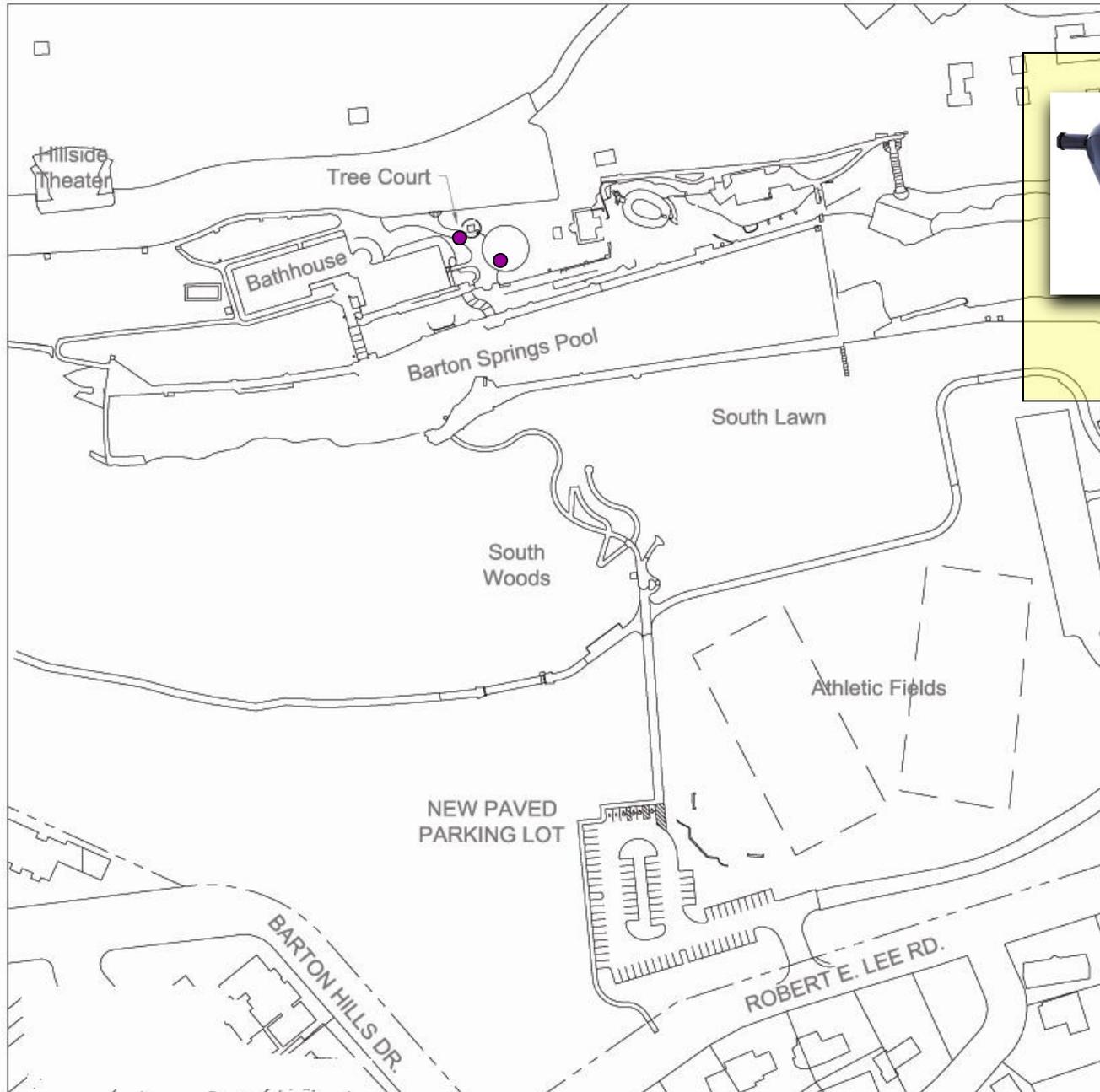
**New Poles and Lights Installed May 12 – 16**  
**Adjusted Night of May 21 with Staff and Lifeguards**  
**Installed last Pole (north east) May 29<sup>th</sup> &**  
**Readjusted Several Lights**



## LED Tree Down Light

- Full-Cutoff
- Strap Mounted to Existing Trees

Philips Bronzelite  
TL7012N LED



## LED Tree Down Light

- Full-Cutoff
- Strap Mounted to Existing Trees

Philips Bronzelite  
TL7012N LED

**Response to Urban Forestry Board, Deleted Tree Down Lights from the Tree Court.**

**Added:  
Two 10' Pedestrian Lights  
Were Added to the Tree Court.**





### LED Pedestrian and Parking Lot Light

- Full-Cutoff
- 10' Pedestrian Light
- 16' Parking Light

Philips Lumec: Series Domus

DOS-40W30LED4K-ES-LE5F-VOLT-BKTK



- A. South Entry Gate**
- B. Combined ADA Path and Steps**
- C. South Woods**
- D. Connection to Pool Deck**
- E. Overlook Area**
- F. New Ornamental Perimeter Fence**
- G. Relocated D. G. Trail**
- H. South Parking Lot**
- I. Planting on Slope**
- J. Tree Court**

- LEGEND**
- Pool Area Light
  - Pedestrian and Parking Lot Light

**Barton Springs Pool  
General Grounds Improvements**



Old Lighting



Old Lighting



Old Lighting



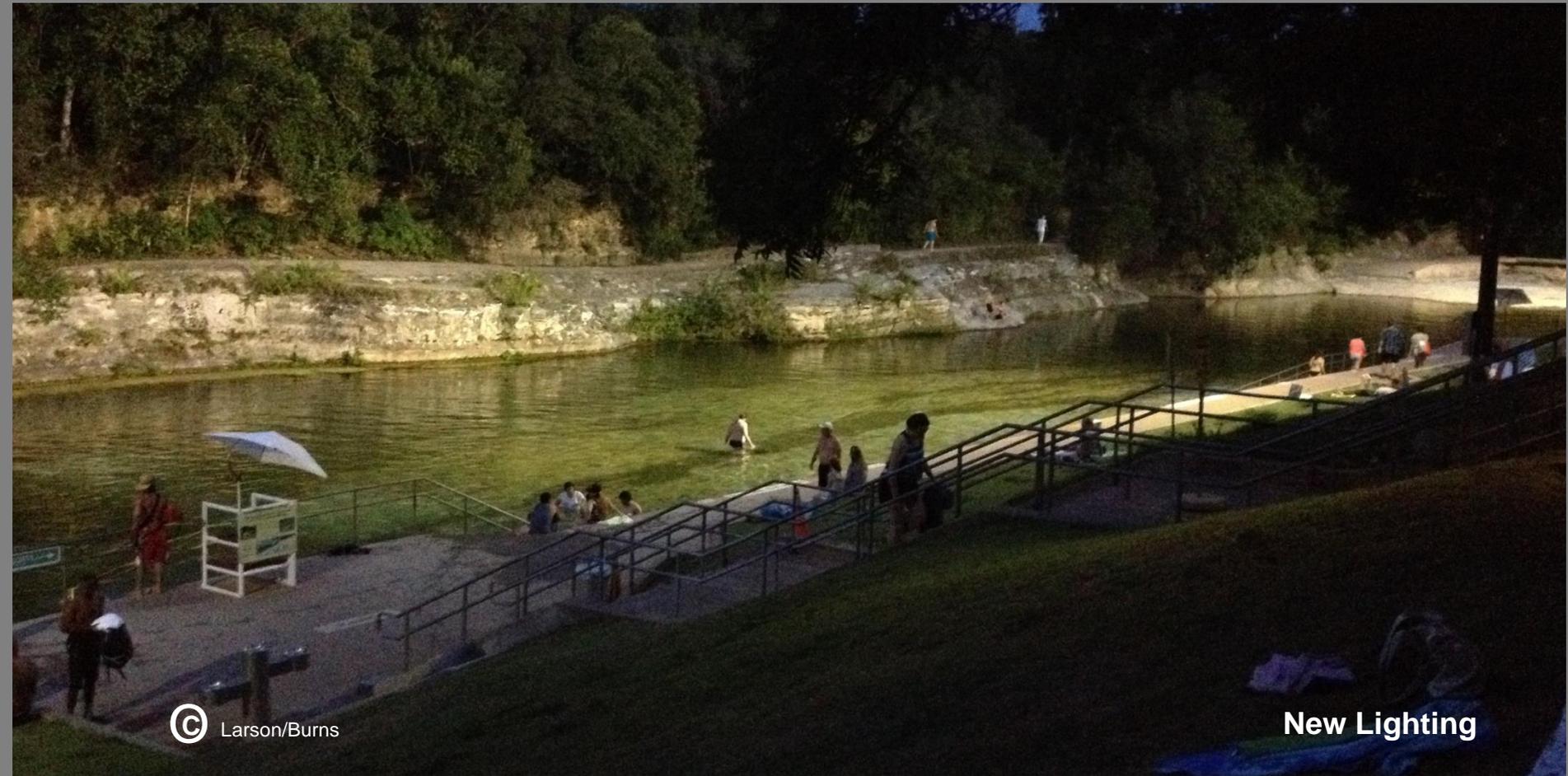
Old Lighting



Old Lighting



Old Lighting



© Larson/Burns

New Lighting



Old Lighting



© Larson/Burns

New Lighting



© Larson/Burns

New Lighting



© Larson/Burns

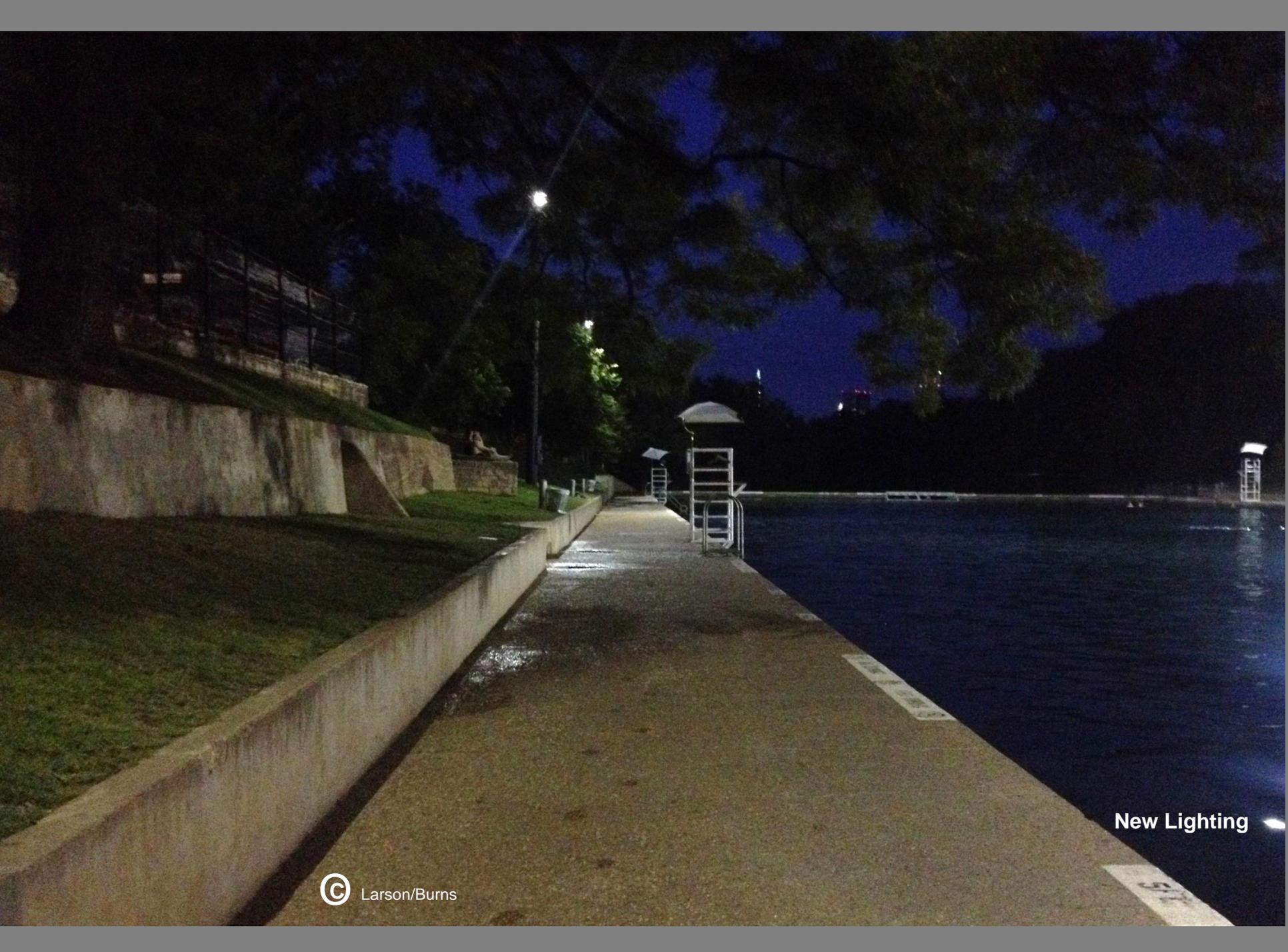
New Lighting





Old Lighting





New Lighting



© Larson/Burns

New Lighting



- A. South Entry Gate**
- B. Combined ADA Path and Steps**
- C. South Woods**
- D. Connection to Pool Deck**
- E. Overlook Area**
- F. New Ornamental Perimeter Fence**
- G. Relocated D. G. Trail**
- H. South Parking Lot**
- I. Planting on Slope**
- J. Tree Court**

Hill Abell's comments from the Land, Facilities & Program Meeting Aug. 19, 2014:

***"I thought the pool was absolutely magical last night"***

***"I thought it was beautiful. It could not be improved upon"***

***"I personally think there is zero safety issue and I will not make a recommendation to do anything other than some experimentation with trying to minimize the glare, if at all possible"***



Hill Abell also stated:

***"The lighting is "phenomenal" around the pool deck."***

***"Glare is a fact of life"***

